

A decorative diagonal strip on the left side of the slide contains a series of nature-themed images: a green landscape, yellow flowers, a water droplet, a green leaf, a mountain lake, a green field, a water droplet, a green leaf, yellow flowers, a mountain lake, and a green landscape.

State of Missouri MDNR-DE Missouri Energy Stakeholder Process Energy-Efficiency Meeting

**10/25/2011
The Cadmus Group**

The Cadmus Group, Inc.

- Established in 1983, premier energy and environmental consulting firm serving Federal & state agencies and energy utilities throughout North America
- More than 250 full-time, professional consultants in major offices in Watertown, MA, Washington, DC, Arlington VA, Portland, OR, and Boulder, CO
- Major practice areas include:
 - Energy policy, planning and forecasting
 - Utility integrated resource planning
 - Energy efficiency, demand response, renewable energy policy, planning, market assessment, program design and evaluation
 - Drinking water and water quality
 - Environmental assessment

Team Members

The Cadmus Group

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Project Coordination

Introduction

Goals:

- Maintain competitive costs for Missourians
- Promote cleaner, greener economy that includes more renewable energy
- Provides strategies to achieve all cost-effective energy efficiency savings
- Achieve greater energy security through energy choices

Introduction (cont)

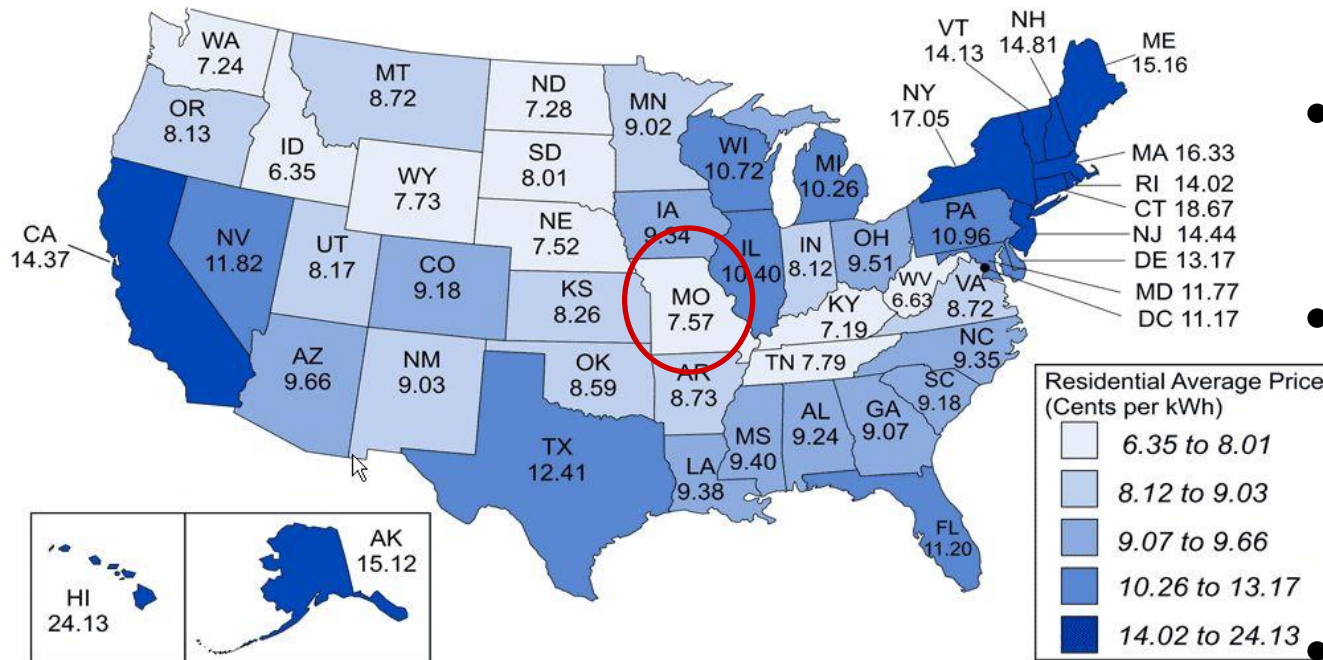
Guidelines

- Energy efficiency should be a critical component
- The recommendations are viable and provide realistic options
- Enhance economic opportunities
- Consider all of Missouri's resources
- Address MDNR-DE role as a leader

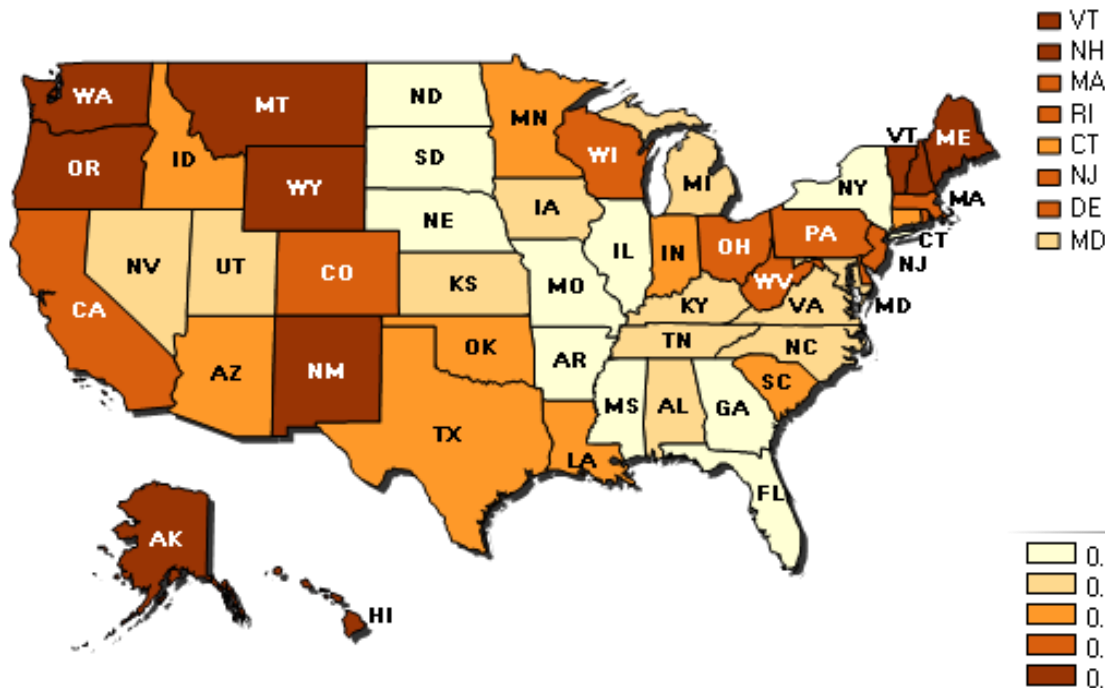
Goal: Maintain competitive energy costs for Missourians

The U.S. average residential retail price of electricity was 10.64 cents per kilowatthour in 2007.

- 7.35¢/kWh in 2009
- 9th lowest electricity cost per kWh in U.S.
- But buildings consume energy at one of the highest rates per capita
- And demand is growing

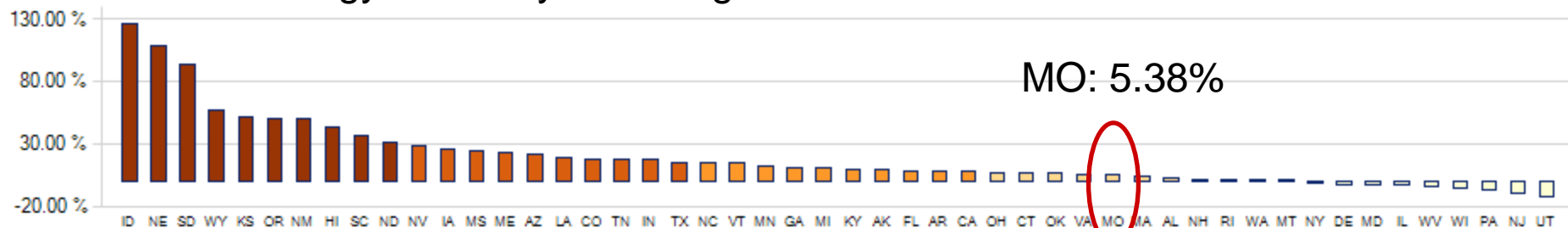


Goal: Promote cleaner, greener economy that includes more renewable energy



- Missouri has 0.33% share of clean energy economy businesses in US

Clean energy economy relative growth rate 1998-2007



Goal: Promote cleaner, greener economy that includes more renewable energy

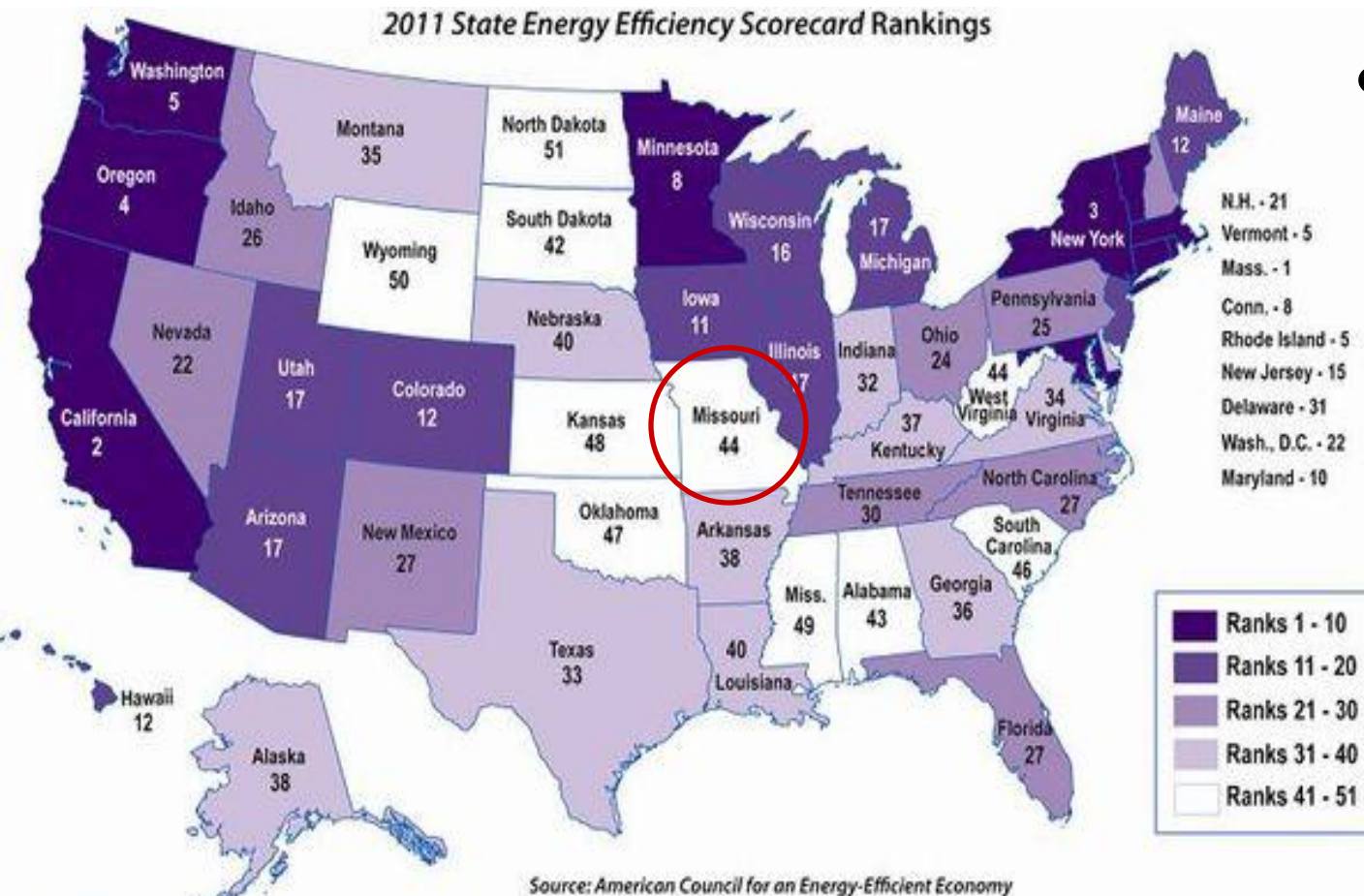
Renewable Energy Standard

- Mandatory renewable electricity standard of 15% by 2021 with 0.3% of retail electricity sales derived from solar electricity.
- Current total renewable net generation: 2.7%

Renewable Energy Potential

- Biomass: significant throughout the state, especially in the north and southeast
- Solar: Very good throughout the state
- Wind: viable, mostly in the northwest

Goal: provide strategies to achieve all cost-effective efficiency savings



- Missouri ranks 44th in in energy efficiency efforts

Goal: provide strategies to achieve all cost-effective efficiency savings

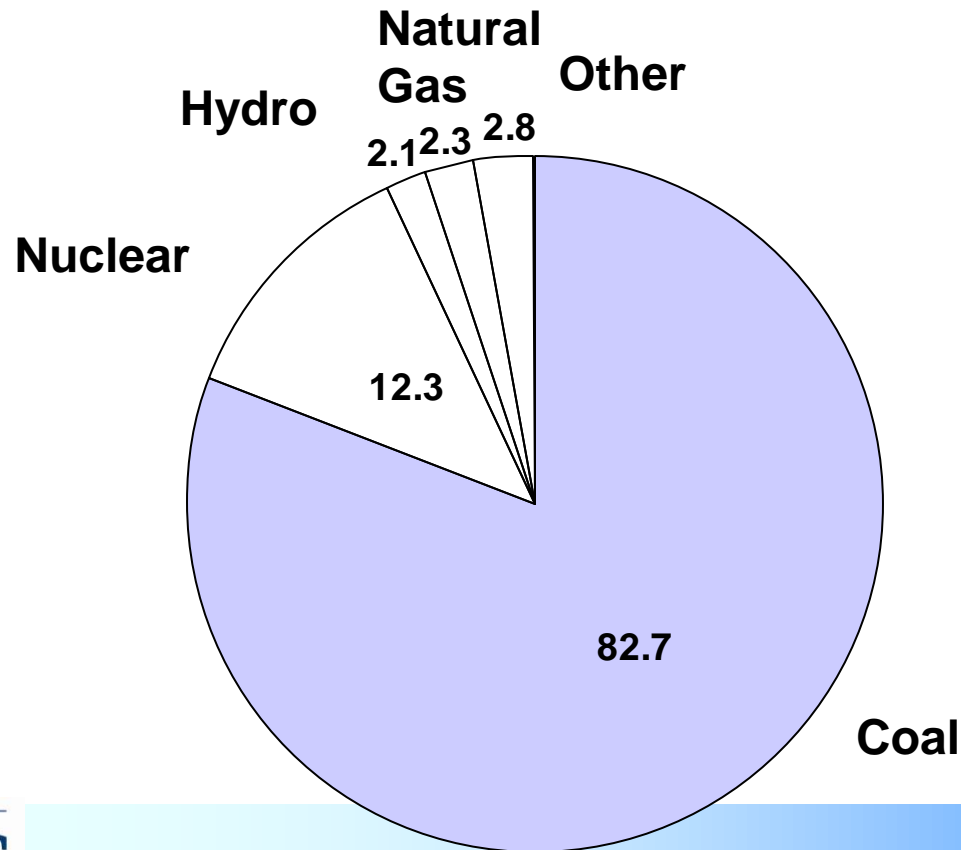
- Potential for efficiency to meet 17% of MO electricity and 13% of natural gas needs by 2025.
 - Saving consumers \$6.1 billion in net energy bill costs and creating 8,500 new, local jobs

Goal: Achieve greater energy security through energy choices

- Energy Security:
 - Diversity: reducing reliance on any one source of imported energy
 - Local resource use: exploiting native fossil fuel or renewable energy resources, and
 - Efficiency: reducing overall demand through energy conservation

Goal: Achieve greater energy security through energy choices

Percentage of Electric Power Generation by Source for Missouri, 1990-2007



Some Key issues

- State is largely coal dependent for electricity generation
- Lacks significant renewable resources
- Demand growth
- Efficiency is the lowest cost resource but significant barriers exist
- How can the DNR Division of Energy help move MO in the right direction?

Examples of state energy efforts beyond Missouri

- Green building certification
- Workforce training
- Demonstration projects
- Revolving loan funds
- Information clearinghouses
- Technical assistance
- Tax incentives
- Collaborative partnerships
- Advocacy